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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,271	03/10/2004	Glenn Algie	7000-248	2945

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EXAMINER	
NGUYEN, ANH NGOC M	
ART UNIT	PAPER NUMBER
2616	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/797,271	ALGIE ET AL.	
	Examiner	Art Unit	
	Anh Ngoc Nguyen	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03/10/2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03/10/2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

Applicant's Arguments/Remarks dated 07/15/2008 have been considered but are not persuasive. Claims 1 - 12 are pending.

Response to Arguments

Applicant alleges on page 3 of Applicant's Remarks that *neither Chou or Moon teaches or suggests the claimed interface personality.*

Examiner respectfully disagrees. Chou discloses method and system for configuring an interconnect device (see title) and configuration data such as, for example, parameters pertaining to port links, virtual lane parameters (see col. 3 lines 34 – 36 and col. 4 lines 10 - 14). Configuration data is the claimed interface personality. Furthermore, Moon also teaches the claimed interface personality in col. 1 lines 50 – 55.

Applicant further alleges on page 3 of Applicant's Remarks that *Chou does not teach or suggest selecting the interface personality.*

Examiner respectfully disagrees. Chou suggests selecting the interface personality (see col. 5 lines 15 - 26) however as shown in the Office Action dated 04/15/2008, Moon teaches selecting the interface personality. Moon teaches an identification for the input/output card may be provided to an end user, the identification reflecting a *selected configuration parameter* associated with the input/output card (see col. 1 lines 50 - 55). Applicant alleges the claimed interface personality will define pin functionality, signal levels, acceptable protocols, and the like (Specification, paragraph 0004). This fails to overcome Moon as a reference because defining pin functionality, signal levels, acceptable protocols, and the like are disclosed in the

specification and not in the claims. Therefore, Moon teaches selecting the claimed interface personality.

On page 4 of Applicant's Remarks, Applicant alleges that *Chou does not disclose negotiations with the module and to identify an interface personality for the module.*

Examiner respectfully disagrees. Chou discloses negotiations with the module. Chou teaches the following:

In one embodiment, configuration module 306 consists of an initialization module 302 and a processor subsystem interface 304. *Initialization module 302 queries processor subsystem interface 304 for configuration data. Processor subsystem interface 304 requests the configuration data from processor subsystem 310 and communicates the configuration data received from processor subsystem 304 to initialization module 302. Initialization module 302 analyzes the configuration data and distributes it to various units of switch 308 via an internal bus 312.* As described above, the units of switch 308 may include a set of communications ports, an arbiter, a functional BIST port, a management port, etc. In one embodiment, each block of configuration data received by initialization module 302 includes an identifier and/or address of the unit that should receive this block of configuration data (see col. 5 lines 15 - 26).

In one embodiment, initialization module 302 is also responsible for monitoring execution of automatic self tests (e.g., built-in self tests (BISTs)). When information received by initialization module 302 from processor subsystem 310 includes a block of data associated with an automatic self test, initialization module 302 ensures that the test conditions are enforced and monitors the result of the test. When this activity is over, initialization module 302 resumes querying processor subsystem interface 304 for configuration data until receiving

an indicator associated with the end of the configuration data. Then, initialization module 302 enables the communications ports, and switch 308 becomes ready to handle network traffic (see col. 5 lines 50 - 58). Chou teaches or suggests negotiations with the module as recited above through the processes of *querying, requesting, analyzing and/or communicating* between the various modules of switch 308 in Figure 3A.

Plus, Chou teaches configuration interfaces 364 *identifies a storage device storing the configuration data* and sends a request for the configuration data to this storage device (see col. 6 lines 64 - 67). Therefore, this reads on the limitation of identify an interface personality for the module.

Applicant alleges on page 5 of Applicant's Remarks that Chou does not teach or suggest different interface personalities are implemented simultaneously.

Chou teaches configuration module 226 is responsible for providing configuration data to various components of switch 200 during the initialization process (see col. 4 lines 20 - 25). Each block of configuration data consists of 12 bytes: *4 bytes are designated for a destination node identifier (ID) and a destination node address, and 8 bytes are designated to store payload data (e.g., IAL packet payload data). The payload data may include configuration data such as arbiter tables data, management port data, communications port data, etc. The payload data is associated with a switch unit identified by a destination node ID* and address that precede this payload data. In one embodiment, some blocks of configuration data may include a destination address of the BIST start register indicating the beginning of the self test. In yet another embodiment, *some blocks of configuration data may include semaphore information*, with the node ID and address identifying the semaphore and the payload data including some predefined

information. The functionality of a semaphore will be described in greater detail below in conjunction with FIG. 9 (see col. 9 lines 39 - 55). Referring to Figure 7, data block 1 to data block N have destination node ID and address for sending configuration data to the proper node. Thus, Chou teaches/suggests different interface personalities are implemented simultaneously.

Applicant alleges on page 6 of Applicant's Remarks that Chou does not teach or suggest renegotiating, selecting, and applying a new interface personality. Plus, Applicant alleges the indicator in Chou is not indicative of a change in personality for the module.

Examiner respectfully disagrees. In col. 5 lines 55 – 62, Chou teaches when this activity is over, initialization module 302 resumes *querying processor subsystem interface 304 for configuration data until receiving an indicator associated with the end of the configuration data.* Then, initialization module 302 enables the communications ports, and switch 308 becomes ready to handle network traffic. This reads on a stimulus indicative of a change in personality for the module. The indicator of Chou indicates that the original configuration data has been received and now the switch 308 can begin request for updated configuration data as further disclosed in col. 5 lines 63 – 67 and col. 6 lines 1 – 5.

Chou teaches/suggests renegotiating, selecting, and applying a new interface personality. Chou teaches *querying, requesting, analyzing and/or communicating* between the various modules of switch 308 as addressed above. Chou teaches when a reset of the interconnect device occurs, the configuration information is lost, and the SM needs to *reload the configuration information* to make the interconnect device functional again (see col. 4 lines 40 - 48). In order to reload the configuration information, the switch 308 must perform the processes of *querying, requesting, analyzing and/or communicating* with the processor subsystem 310 as recited in col.

5 lines 15 – 25. Plus, initialization module 302 is also responsible for *managing updates to configuration data when such data needs to be changed. An update can be requested by a SM by issuing a SM packet. Initialization module 302 receives an update SM packet and requests processor subsystem interface 304 to update the configuration data.* Processor subsystem interface 304 then requests processor subsystem 310 to update the configuration data in non-volatile storage device 316 (see col. 5 lines 63 – 67 and col. 6 lines 1 - 5). Updating the configuration data when such data needs to be changed reads on applying a new interface personality.

Concerning the Applicant's arguments on the dependent claims, Chou and Moon showed the limitations singularly or in combination of a system and it were shown in combination to cover those limitations.

As a result the argued features are shown by the cited references as follows:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1 – 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chou et al (US 7,043,569) in view of Moon et al (US 7,000,052).

Chou discloses method and apparatus for configuring an interconnect device comprising the following features:

Regarding claim 1, Chou discloses an adaptive interconnect (see Fig. 2 and col. 1 lines 40 - 45, switch 200) for providing an interface between multiple modules and a control system comprising: a) a control system interface (see Fig. 3A, processor subsystem interface 304); b) a plurality of module interfaces (see Fig. 2, PORTS 1 - 9); and c) adaptive interconnect logic (see Fig. 2, management port 208) associated with the control system interface and the plurality of module interfaces (see Fig. 2 and Fig. 3A, management port is coupled to ports 1 – 9 and processor subsystem interface 304) and adapted to: i) negotiate with a module over a control path (see col. 3 lines 25 – 47, competing requests for switch resources) via one of the plurality of module interfaces to identify an interface personality for the module (see col. 6 lines 64 – 67, identifying a storage device storing the configuration data and sending a request for the configuration data); ii) load the interface personality based on negotiations with the module (see col. 3 lines 32 – 37, loading the configuration data); and iii) apply the interface personality to the one of the plurality of module interfaces (see col. 4 lines 42 – 46 and col. 6 lines 20 – 28, providing the configuration data to various components of switch 200).

Regarding claims 2 and 8, Chou discloses wherein different interface personalities can be implemented simultaneously among the plurality of module interfaces (see col. 4 lines 20 – 25 lines 42 – 46 and col. 6 lines 20 – 28, providing the configuration data to units of the switch).

Regarding claims 3 and 9, Chou discloses wherein the adaptive interconnect logic is further adapted to renegotiate with the module over the control path if initial negotiations fail (see col. 4 lines 43 – 50, reloading the configuration information when resetting the interconnect

device).

Regarding claims 4 and 10, Chou discloses wherein if the renegotiation fails, the adaptive interconnect logic is further adapted to send a notification of failure (see col. 3 lines 55 – 67, verify whether the POST has passed or failed).

Regarding claims 5 and 11, Chou discloses wherein the adaptive interconnect logic (see Fig. 2, management port 208) is further adapted to: a) receive a stimulus indicative of a change in personality for the module (see col. 5 lines 49 – 62, receiving an indicator); b) renegotiate with the module over the control path via one of the plurality of module interfaces to identify a new interface personality for the module (see col. 4 lines 43 – 50, reloading the configuration information when resetting the interconnect device); c) load the new interface personality based on the renegotiations with the module (see col. 4 lines 40 – 42, loading configuration information); and d) apply the new interface personality to the one of the plurality of module interfaces (see col. 4 lines 42 – 46 and col. 6 lines 20 – 28, providing the configuration data to units of the switch).

Regarding claim 7, Chou discloses a method for providing an interface between multiple modules and a control system comprising: a) negotiating with a module over a control path (see col. 3 lines 25 – 47, competing requests for switch resources) via one of a plurality of module interfaces to identify an interface personality for the module (see col. 6 lines 64 – 67, identifying a storage device storing the configuration data and sending a request for the configuration data); b) loading the interface personality based on negotiations with the module (see col. 3 lines 32 – 37, loading the configuration data); and c) applying the interface personality to the one of the plurality of module interfaces (see col. 4 lines 42 – 46 and col. 6 lines 20 – 28, providing the

configuration data to various components of switch 200).

Chou discloses the claimed limitations as stated above. Chou does not specifically disclose the following features: regarding claims 1 and 7, selecting the interface personality; regarding claims 5 and 11, selecting the new interface personality; regarding claims 6 and 12, wherein negotiating, selecting and applying the interface personality are dynamic and occur automatically upon plugging the module into the one of the plurality of module interfaces.

Moon discloses system and method for configuring and deploying I/O cards in a communications environment comprising the following features:

Regarding claims 1 and 7, Moon discloses selecting the interface personality (see col. 1 lines 50 – 55, a selected configuration parameter).

Regarding claims 5 and 11, Moon discloses selecting the new interface personality (see abstract and col. 1 lines 50 – 55, selected configuration).

Regarding claims 6 and 12, Moon discloses wherein negotiating, selecting and applying the interface personality are dynamic and occur automatically upon plugging the module into the one of the plurality of module interfaces (see col. 6 lines 1 – 16, automatically configured resources and 'plug and play').

It would have been obvious to one ordinary skilled in the art at the time the invention was made to modify the invention of Chou, and use the features, as taught by Moon, thus providing for an efficient configuration and deployment technique, as discussed by Moon (see col. 1 lines 35 - 45).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh Ngoc Nguyen whose telephone number is (571) 270-5139. The examiner can normally be reached on M - F, from 7AM to 3PM (alternate first Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Yao can be reached on 5712723182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anh Ngoc Nguyen/
Examiner, Art Unit 2616
08/14/2008

/Kwang B. Yao/
Supervisory Patent Examiner, Art Unit 2616